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(54) Title: METHOD FOR GRAFTING A CHEMICAL COMPOUND TO A SUPPORT SUBSTRATE

(57) Abstract: According to the present invention a method for grafting a chemical compound to a predetermined region of a support substrate (4) is disclosed, comprising: a) irradiating selectively the support substrate with electromagnetic radiation and/or particle radiation in order to both define said predetermined region and to form at least one reactive functional group or a precursor thereof in said predetermined region of the support substrate; b) exposing the irradiated support substrate to said chemical compound or to a precursor thereof. Therefore, only these very few steps are needed to effectively grafting the desired chemical compound, such as an organic compound, to the predetermined regions of the support substrate. Moreover, the irradiation step can be carried out in a vastly flexible manner and allows to generate numerous distinct shapes of the predetermined regions. Further, micro- or nano-scale regions in the support substrate capable of forming reactive functional groups or precursors thereof upon exposure to particle or electromagnetic irradiation can be easily achieved.